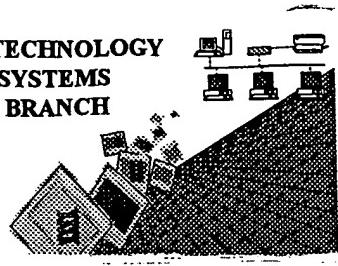


RAW SEQUENCE LISTING ERROR REPORT

BIOTECHNOLOGY
SYSTEMS
BRANCH



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/018,383
Source: PUR/10
Date Processed by STIC: 6/4/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
 - 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
- FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

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TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

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Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name,
Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
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2011 South Clark Place, Arlington, VA 22202
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Revised 01/29/2002



PCT10

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/018,383

DATE: 06/04/2002

TIME: 14:56:06

Input Set : A:\X11600.ST25.txt
Output Set: N:\CRF3\06042002\J018383.raw

**Does Not Comply
Corrected Diskette Needed**

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/018,383

DATE: 06/04/2002
TIME: 14:56:06

Input Set : A:\X11600.ST25.txt
Output Set: N:\CRF3\06042002\J018383.raw

59	Gln	Leu	Val	His	Ser	Phe	Ala	Glu	Gly	Gln	Asp	Gln	Gly	Ser	Ala	Tyr		
60	75					80				85								
62	gcc	aac	cgc	acg	gcc	ctc	tcc	ccg	gac	ctg	ctg	gca	cag	ggc	aac	gca		
63	Ala	Asn	Arg	Thr	Ala	Leu	Phe	Pro	Asp	Leu	Leu	Ala	Gln	Gly	Asn	Ala		
64	90					95				100						105		
66	tcc	ctg	agg	ctg	cag	cgc	gtg	cgt	gtg	gct	gac	gag	ggc	agc	ttc	acc		
67	Ser	Leu	Arg	Leu	Gln	Arg	Val	Arg	Val	Ala	Asp	Glu	Gly	Ser	Phe	Thr		
68						110				115						120		
70	tgc	ttc	gtg	agc	atc	cg	gat	ttc	ggc	agc	gct	gcc	gtc	agc	ctg	cag		
71	Cys	Phe	Val	Ser	Ile	Arg	Asp	Phe	Gly	Ser	Ala	Ala	Val	Ser	Leu	Gln		
72						125				130						135		
74	gtg	gcc	gct	ccc	tac	tcg	aag	ccc	agc	atg	acc	ctg	gag	ccc	aac	aag		
75	Val	Ala	Ala	Pro	Tyr	Ser	Lys	Pro	Ser	Met	Thr	Leu	Glu	Pro	Asn	Lys		
76						140				145						150		
78	gac	ctg	cg	cca	ggg	gac	acg	gtg	acc	atc	acg	tgc	tcc	agc	tac	cag		
79	Asp	Leu	Arg	Pro	Gly	Asp	Thr	Val	Thr	Ile	Thr	Cys	Ser	Ser	Tyr	Gln		
80						155				160						165		
82	ggc	tac	cct	gag	gtg	ttc	tgg	cag	gat	ggg	cag	gg	gtg	ccc		579		
83	Gly	Tyr	Pro	Glu	Ala	Glu	Val	Phe	Trp	Gln	Asp	Gly	Gln	Gly	Val	Pro		
84						170				175						185		
86	ctg	act	ggc	aa	gtg	acc	acg	tcg	cag	atg	gcc	aa	gag	cag	ggc	ttg		
87	Leu	Thr	Gly	Asn	Val	Thr	Thr	Ser	Gln	Met	Ala	Asn	Glu	Gln	Gly	Leu		
88						190				195						200		
90	ttt	gat	gtg	cac	agc	atc	ctg	cg	gtg	gtg	ctg	ggt	gca	aat	ggc	acc		
91	Phe	Asp	Val	His	Ser	Ile	Leu	Arg	Val	Val	Leu	Gly	Ala	Asn	Gly	Thr		
92						205				210						215		
94	tac	agc	tgc	ctg	gtg	cgc	aa	ccc	gtg	ctg	cag	gat	g	cc	cac	agc		
95	Tyr	Ser	Cys	Leu	Val	Arg	Asn	Pro	Val	Leu	Gln	Gln	Asp	Ala	His	Ser		
96						220				225						230		
98	tct	gtc	acc	atc	aca	ccc	cag	aga	agc	ccc	aca	gga	gcc	gtg	gag	gtc		
99	Ser	Val	Thr	Ile	Thr	Pro	Gln	Arg	Ser	Pro	Thr	Gly	Ala	Val	Glu	Val		
100						235				240						245		
102	cag	gtc	cct	gag	gac	cog	gtg	gtg	gcc	cta	gtg	ggc	acc	gat	gcc	acc		
103	Gln	Val	Pro	Glu	Asp	Pro	Val	Val	Ala	Leu	Val	Gly	Thr	Asp	Ala	Thr		
104						250				255						265		
106	ctg	cgc	tgc	tcc	tcc	ccc	gag	cct	ggc	ttc	agc	ctg	gca	cag	ctc			
107	Leu	Arg	Cys	Ser	Phe	Ser	Pro	Glu	Pro	Gly	Phe	Ser	Leu	Ala	Gln	Leu		
108						270				275						280		
110	aac	ctc	atc	tgg	cag	ctg	aca	gac	acc	aaa	cag	ctg	cac	agt	ttc			
111	Asn	Leu	Ile	Trp	Gln	Leu	Thr	Asp	Thr	Lys	Gln	Leu	Val	His	Ser	Phe		
112						285				290						295		
114	acc	gaa	ggc	cgg	gac	cag	ggc	agc	gcc	tat	gcc	aa	cgc	acg	gcc	ctc		
115	Thr	Glu	Gly	Arg	Asp	Gln	Gly	Ser	Ala	Tyr	Ala	Asn	Arg	Thr	Ala	Leu		
116						300				305						310		
118	tcc	ccg	gac	ctg	ctg	gca	caa	ggc	aat	gca	tcc	ctg	agg	ctg	cag	cgc		
119	Phe	Pro	Asp	Leu	Leu	Ala	Gln	Gly	Asn	Ala	Ser	Leu	Arg	Leu	Gln	Arg		
120						315				320						325		
122	gtg	cgt	gtg	g	g	g	g	g	g	g	acc	ttc	acc	tg	g	agc	atc	cg
123	Val	Arg	Val	Ala	Asp	Glu	Gly	Ser	Phe	Thr	Cys	Phe	Val	Ser	Ile	Arg		

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/018,383

DATE: 06/04/2002
TIME: 14:56:06

Input Set : A:\X11600.ST25.txt
Output Set: N:\CRF3\06042002\J018383.raw

124	330	335	340	345	
126	gat ttc ggc agc gct gcc gtc agc ctg cag gtg gcc gct ccc tac tcg				1107
127	Asp Phe Gly Ser Ala Ala Val Ser Leu Gln Val Ala Ala Pro Tyr Ser				
128	350	355	360		
130	aag ccc agc atg acc ctg gag ccc aac aag gac ctg cgg cca ggg gac				1155
131	Lys Pro Ser Met Thr Leu Glu Pro Asn Lys Asp Leu Arg Pro Gly Asp				
132	365	370	375		
134	acg gtg acc atc acg tgc tcc agc tac cgg ggc tac cct gag gct gag				1203
135	Thr Val Thr Ile Thr Cys Ser Ser Tyr Arg Gly Tyr Pro Glu Ala Glu				
136	380	385	390		
138	gtg ttc tgg cag gat ggg cag ggt gtg ccc ctg act ggc aac gtg acc				1251
139	Val Phe Trp Gln Asp Gly Gln Gly Val Pro Leu Thr Gly Asn Val Thr				
140	395	400	405		
W--> 142	acg tcg cag atg gcc aac gag cag ggc ttg ttt nnn nnn nnn nnn nnn				1299
W--> 143	Thr Ser Gln Met Ala Asn Glu Gln Gly Leu Phe Xaa Xaa Xaa Xaa				
144	410	415	420	425	
W--> 146	nnn				1347
W--> 147	Xaa				
148	430	435	440		
W--> 150	nnn nnn nnn nnn nnn nnn gat gcg cac ggc tct gtc acc atc aca ggg				1395
W--> 151	Xaa Xaa Xaa Xaa Xaa Xaa Asp Ala His Gly Ser Val Thr Ile Thr Gly				
152	445	450	455		
154	cag cct atg aca ttc ccc cca gag ggc ctg tgg gtg acc gtg ggg ctg				1443
155	Gln Pro Met Thr Phe Pro Pro Glu Ala Leu Trp Val Thr Val Gly Leu				
156	460	465	470		
158	tct gtc tgt ctc att gca ctg ctg gtg gcc ctg gct ttc gtg tgc tgg				1491
159	Ser Val Cys Leu Ile Ala Leu Leu Val Ala Leu Ala Phe Val Cys Trp				
160	475	480	485		
162	aga aag atc aaa cag agc tgt gag gag aat gca gga gct gag gac				1539
163	Arg Lys Ile Lys Gln Ser Cys Glu Glu Glu Asn Ala Gly Ala Glu Asp				
164	490	495	500	505	
166	cag gat ggg gag gga gaa ggc tcc aag aca gcc ctg cag cct ctg aaa				1587
167	Gln Asp Gly Glu Gly Ser Lys Thr Ala Leu Gln Pro Leu Lys				
168	510	515	520		
170	cac tct gac agc aaa gaa gat gat gga caa gaa ata gcc tga				1629
171	His Ser Asp Ser Lys Glu Asp Asp Gly Gln Glu Ile Ala				
172	525	530			
174	ccatgaggac cagggagctg ctaccctcc ctacagctcc taccctctgg ctgc				1683
177	<210> SEQ ID NO: 2				
178	<211> LENGTH: 534				
179	<212> TYPE: PRT				
180	<213> ORGANISM: Homo sapiens				
182	<220> FEATURE:				
183	<221> NAME/KEY: misc_feature				
184	<222> LOCATION: (421)..(421)				
185	<223> OTHER INFORMATION: The 'Xaa' at location 421 stands for Lys, Asn, Arg, Ser, Ile				
186	, Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,				
187	Tyr, Trp, Cys, or Phe.				
189	<220> FEATURE:				

Xaa can only represent an actual amino acid, not a stop codon

file:///C:/CrF3/Outhold/VsrJ018383.htm 6/4/02

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/018,383

DATE: 06/04/2002
TIME: 14:56:06

Input Set : A:\X11600.ST25.txt
Output Set: N:\CRF3\06042002\J018383.raw

190 <221> NAME/KEY: misc_feature
 191 <222> LOCATION: (422)..(422)
 192 <223> OTHER INFORMATION: The 'Xaa' at location 422 stands for Lys, Asn, Arg, Ser,
 Thr, Ile
 193 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
 194 Tyr, Trp, Cys, or Phe. same error
 196 <220> FEATURE:
 197 <221> NAME/KEY: misc_feature
 198 <222> LOCATION: (423)..(423)
 199 <223> OTHER INFORMATION: The 'Xaa' at location 423 stands for Lys, Asn, Arg, Ser,
 Thr, Ile
 200 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
 201 Tyr, Trp, Cys, or Phe.
 203 <220> FEATURE:
 204 <221> NAME/KEY: misc_feature
 205 <222> LOCATION: (424)..(424)
 206 <223> OTHER INFORMATION: The 'Xaa' at location 424 stands for Lys, Asn, Arg, Ser,
 Thr, Ile
 207 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
 208 Tyr, Trp, Cys, or Phe.
 210 <220> FEATURE:
 211 <221> NAME/KEY: misc_feature
 212 <222> LOCATION: (425)..(425)
 213 <223> OTHER INFORMATION: The 'Xaa' at location 425 stands for Lys, Asn, Arg, Ser,
 Thr, Ile
 214 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
 215 Tyr, Trp, Cys, or Phe.
 217 <220> FEATURE:
 218 <221> NAME/KEY: misc_feature
 219 <222> LOCATION: (426)..(426)
 220 <223> OTHER INFORMATION: The 'Xaa' at location 426 stands for Lys, Asn, Arg, Ser,
 Thr, Ile
 221 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
 222 Tyr, Trp, Cys, or Phe.
 224 <220> FEATURE:
 225 <221> NAME/KEY: misc_feature
 226 <222> LOCATION: (427)..(427)
 227 <223> OTHER INFORMATION: The 'Xaa' at location 427 stands for Lys, Asn, Arg, Ser,
 Thr, Ile
 228 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
 229 Tyr, Trp, Cys, or Phe.
 231 <220> FEATURE:
 232 <221> NAME/KEY: misc_feature
 233 <222> LOCATION: (428)..(428)
 234 <223> OTHER INFORMATION: The 'Xaa' at location 428 stands for Lys, Asn, Arg, Ser,
 Thr, Ile
 235 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
 236 Tyr, Trp, Cys, or Phe.
 238 <220> FEATURE:
 239 <221> NAME/KEY: misc_feature
 240 <222> LOCATION: (429)..(429)
 241 <223> OTHER INFORMATION: The 'Xaa' at location 429 stands for Lys, Asn, Arg, Ser,
 Thr, Ile

242 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
243 Tyr, Trp, Cys, or Phe.
245 <220> FEATURE:
246 <221> NAME/KEY: misc_feature



RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/018,383

DATE: 06/04/2002
TIME: 14:56:06

Input Set : A:\X11600.ST25.txt
Output Set: N:\Crf3\06042002\J018383.raw

247 <222> LOCATION: (430)..(430)
 248 <223> OTHER INFORMATION: The 'Xaa' at location 430 stands for Lys, Asn, Arg, Ser,
 Thr, Ile
 249 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
 250 Tyr, Trp, Cys, or Phe.

252 <220> FEATURE:
 253 <221> NAME/KEY: misc_feature
 254 <222> LOCATION: (431)..(431)
 255 <223> OTHER INFORMATION: The 'Xaa' at location 431 stands for Lys, Asn, Arg, Ser,
 Thr, Ile
 256 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
 257 Tyr, Trp, Cys, or Phe.

259 <220> FEATURE:
 260 <221> NAME/KEY: misc_feature
 261 <222> LOCATION: (432)..(432)
 262 <223> OTHER INFORMATION: The 'Xaa' at location 432 stands for Lys, Asn, Arg, Ser,
 Thr, Ile
 263 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
 264 Tyr, Trp, Cys, or Phe.

266 <220> FEATURE:
 267 <221> NAME/KEY: misc_feature
 268 <222> LOCATION: (433)..(433)
 269 <223> OTHER INFORMATION: The 'Xaa' at location 433 stands for Lys, Asn, Arg, Ser,
 Thr, Ile
 270 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
 271 Tyr, Trp, Cys, or Phe.

273 <220> FEATURE:
 274 <221> NAME/KEY: misc_feature
 275 <222> LOCATION: (434)..(434)
 276 <223> OTHER INFORMATION: The 'Xaa' at location 434 stands for Lys, Asn, Arg, Ser,
 Thr, Ile
 277 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
 278 Tyr, Trp, Cys, or Phe.

280 <220> FEATURE:
 281 <221> NAME/KEY: misc_feature
 282 <222> LOCATION: (435)..(435)
 283 <223> OTHER INFORMATION: The 'Xaa' at location 435 stands for Lys, Asn, Arg, Ser,
 Thr, Ile
 284 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
 285 Tyr, Trp, Cys, or Phe.

287 <220> FEATURE:
 288 <221> NAME/KEY: misc_feature
 289 <222> LOCATION: (436)..(436)
 290 <223> OTHER INFORMATION: The 'Xaa' at location 436 stands for Lys, Asn, Arg, Ser,
 Thr, Ile
 291 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
 292 Tyr, Trp, Cys, or Phe.

294 <220> FEATURE:
 295 <221> NAME/KEY: misc_feature
 296 <222> LOCATION: (437)..(437)
 297 <223> OTHER INFORMATION: The 'Xaa' at location 437 stands for Lys, Asn, Arg, Ser,
 Thr, Ile
 298 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,

Please correct this
error throughout sequence 2

299 Tyr, Trp, Cys, or Phe.
301 <220> FEATURE:
302 <221> NAME/KEY: misc_feature
303 <222> LOCATION: (438)..(438)

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/018,383

DATE: 06/04/2002
TIME: 14:56:07

Input Set : A:\X11600.ST25.txt
Output Set: N:\CRF3\06042002\J018383.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 1285,1286,1287,1288,1289,1290,1291,1292,1293,1294,1295,1296
Seq#:1; N Pos. 1297,1298,1299,1300,1301,1302,1303,1304,1305,1306,1307,1308
Seq#:1; N Pos. 1309,1310,1311,1312,1313,1314,1315,1316,1317,1318,1319,1320
Seq#:1; N Pos. 1321,1322,1323,1324,1325,1326,1327,1328,1329,1330,1331,1332
Seq#:1; N Pos. 1333,1334,1335,1336,1337,1338,1339,1340,1341,1342,1343,1344
Seq#:1; N Pos. 1345,1346,1347,1348,1349,1350,1351,1352,1353,1354,1355,1356
Seq#:1; N Pos. 1357,1358,1359,1360,1361,1362,1363,1364,1365
Seq#:1; Xaa Pos. 421,422,423,424,425,426,427,428,429,430,431,432,433,434
Seq#:1; Xaa Pos. 435,436,437,438,439,440,441,442,443,444,445,446,447
Seq#:2; Xaa Pos. 421,422,423,424,425,426,427,428,429,430,431,432,433,434
Seq#:2; Xaa Pos. 435,436,437,438,439,440,441,442,443,444,445,446,447